

AMSAT News Service Weekly Bulletins

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SB SAT @ AMSAT \$ANS-317.01

D0-17 TELEMETRY FORMAT

HR AMSAT NEWS SERVICE BULLETIN 317.01 FROM AMSAT HQ

SILVER SPRING, MD NOVEMBER 13, 1993

TO ALL RADIO AMATEURS BT

BID: \$ANS-317.01

WD0E Explains Some Of D0-17's Telemetry Format

In response to several requests, the following is a breakdown of information in the STATUS line presently being transmitted by DOVE. Note this applies to DOVE and to this version of the software only.

Counting from the left, the first pair of numbers being 0. All data is in hex.

- 0 - Receiver status. Bits 0 - 3 = Filter status of RX
A-D: 0 = 1200, 1 = 4800. Bits 4 - 7 = gain settings of IR sensor. Normal = 8 = log mode. Normal for whole position is 80 = IR in log, filters in 1200. NOTE: receivers in DOVE are for commanding only.
- 1 - Unused
- 2 - Unused
- 3 - BCR Set point. Is adjusted by housekeeping task software to provide best power transfer from panels to regulators. Normally 1E during eclipse and in the 80's in the sun. Roughly corresponds to telemetry channel 22h.
- 4 - Number of hours since last command. See 18.
- 5 - BCR status bits. Indicates status of various latches in the BCR used to gather telemetry.
- 6 - Transmitter power level, 0 to F. First number is TX1, second is TX2, although they will normally be the same.
- 7 - Which transmitter is in use. Bit 0 (LSB) is TX1, bit 1 is TX2. So a hex 02 indicates TX2 is in use, 01 would be TX1.
- 8 - Unused
- 9 - Status of switches in the voice/packet/s-band module (4). Will always be D0 in this version.
- 10 - Unused
- 11 - When WOD is in use, shows the number of samples taken/16. This provides a positive indication a collection has started, how far it has proceeded and when the sample bucket is full.
- 12 - Low end of nominal transmitter power range. See 13
- 13 - High end of nominal transmitter power range. The housekeeping software moves the transmitter power between these two numbers to control the charge/discharge of the batteries, and keep the transmitter power as high as possible.
- 14 - Time between executions of the power control software in seconds.
- 15 - The transmitter power level that is set if the batteries get abnormally discharged. Normally 5.
- 16 - Count of errors on the s/c internal bus. This will increment on DOVE because module 4 no longer consistently responds.
- 17 - Overflow from 16.
- 18 - Days till the command timer will expire. Defaults to 2 on software start. Normally kept at F. This is another of the software 'watchdogs' that attempt to assure the 2M transmitter doesn't get stuck on forever. If the s/c does

not hear a command in this number of days, it jumps to the ROM boot loader firmware which turns all transmitters off.
19 - The module number the errors in 16 came from.
20 - Internal state related to transmitter lock-on avoidance. Normally 1.

Note that these are somewhat different on the Microsats, and change from time to time as software is modified.

[The AMSAT News Service (ANS) would like to thank Jim White (WD0E) for this bulletin item.]

/EX
SB SAT @ AMSAT \$ANS-317.02
AMSAT OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 317.02 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 13, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-317.02

Current AMSAT Operations Net Schedule For A0-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on A0-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
28-Nov-93	0230	B	39	WJ9F	VE2LVC
12-Dec-93	0435	B	180	W90DI	WB6LLO
3-Jan-94	0200	B	160	WA5ZIB	N7NQM

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. In the unlikely event that either the Net Control Station (NCS) or the alternate do not call on frequency, any participant is invited to act as the NCS.

Slow Scan Television on A0-13

SSTV sessions will be held on immediately after the OPS Nets a downlink on a Mode-B downlink frequency 145.960 MHz.

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SB SAT @ AMSAT \$ANS-317.03
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 317.03 FROM AMSAT HQ
SILVER SPRING, MD NOVEMBER 13, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-317.03

Weekly OSCAR Status Reports: 13-NOV-93

A0-13: Current Transponder Operating Schedule:
L QST *** A0-13 TRANSPONDER SCHEDULE *** 1993 Nov 15-Jan 31
Mode-B : MA 0 to MA 95 ! / Eclipses, max
Mode-B : MA 95 to MA 180 ! OFF Dec 07 - 24. < duration 136

Mode-B : MA 180 to MA 218 ! \ minutes.
Mode-S : MA 218 to MA 220 !<- S beacon only
Mode-S : MA 220 to MA 230 !<- S transponder; B trsp. is OFF
Mode-BS : MA 230 to MA 256 ! Blon/Blat 240/-5
Omnis : MA 250 to MA 150 ! Move to attitude 180/0, Jan 31

DOVE: D0-17 currently sending AX.25 packet telemetry on a downlink frequency of 145.825 MHz. Please send any telemetry that you capture to PY2BJO at his INTERNET address of py2bjo@amsat.org. [WD0HHU]

A0-16: Operating normally. [WH6I]

U0-22: Operating normally. [WH6I]

L0-19: Operating normally. [WH6I]

K0-23: Up and running. Busy as usual. There are a number of images. [WH6I]

K0-25: File system is up but not open for uploads. It appears that the satellite has taken and EIS image, but it is not available. [WH6I]

I0-26: Up and running with a lot of activity. [WH6I]

F0-20: The F0-20 Command Station has reported that a failure was detected in F0-20 digital command system. Therefore, operation will continue only in the analog mode for awhile. [JJ1WTK/3]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

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